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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,582	04/04/2006	Toshiya Hamada	284463US6PCT	9315
22850 7590 08/10/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER HARVEY, DAVID E				
ART UNIT 2621		PAPER NUMBER		
NOTIFICATION DATE 08/10/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/574,582

Applicant(s)

HAMADA ET AL.

Examiner

DAVID E. HARVEY

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-850)
Paper No(s)/Mail Date 11/28/2008, 6/6/2008, 4/4/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 18 and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A) Claim 18 is directed to a computer "program" per se. Computer programs constitute non-functional descriptive material and, as such, do not fall within statutory subject matter defined under section 101.

B) Claim 19 also appears to be directed to a computer "program" per se in view that the claim lacks a clear recitation of functionality; i.e., the claim fails to recite that it is the program that it executed by the computer. Computer programs, per se, constitute non-functional descriptive material and, as such, do not fall within statutory subject matter defined under section 101.

4. **The following references are noted:**

1) US Patent #5,530,797 to Uya et al.:

Uya et al has been cited because, as is shown in Figures 1 and 2, it evidences a compositing system comprising:

- 1) A first VSP (@ 7A) for receiving and processing a first moving picture video signal, wherein the processing includes image magnification/reduction;
- 2) A first image/plane memory (@ 2A) for storing frames of the processed first video signal;
- 3) A second VSP (@ 7B) for receiving and processing a second moving picture video signal, wherein the processing includes image magnification/reduction;
- 4) A second image/plane memory (@ 2B) for storing frames of the processed first video signal;
- 5) A third image/plane memory (@ 1) for storing frames of a static image signal;
- 6) Selection circuitry for selecting one a pixel-by-pixel basis which areas of the images stored in the image/plane memories are outputted and used (@ 9) to generate a combined video signal for display (@ 10);

wherein the selection performed by the selection means is controlled based on various window and priority data supplied from respective memory elements (@ 3-5) .

2) European Patent Document #0,447,197 to Gengler et al:

As is shown in Figure 2, Gengler et al. describes a video signal compositing system which comprises:

- 1) An image frame buffer (e.g. @202), comprised of a first storage means (e.g., @ image data planes 0-7, 8-15, and 16-23), for receiving and storing frames of image data;
- 2) Said image frame buffer (e.g. @202), comprised of additional storage means (e.g., overlay planes 0-3), for storing frames of graphic overlay data;

3) A selection means (@ 206, 208, 210) for selecting outputs of from the first and second storage means on a area-by-area, i.e., pixel-by-pixel, basis; and

4) An a display (@ "TO DISPLAY") for displaying/generated a composite image from the data outputted by the selection means.

3) US Patent #6,888,577 to Waki et al:

Waki et al. has been cited as evidencing state-of-the-art which existed at the time of the instant invention. Specifically, Waki et al. evidences that those skilled in the digital television art understood that numerous image planes, representing different video and graphical images could be blended together in turn, i.e., from top to bottom, in order to produce a composite image frame for display on a TV receiver . [SEE: The discussion under the heading "Background Art" in columns 1 and 2 and, in particular, lines 50-67 of column 1 and lines 1-7 of column 2; and Figures 1A, 1B, 11, and 12]

4) US Patent #7,054,539 to Ito et al.:

Ito et al. has been cited because it illustrates compositing circuitry for use in a playback environment.

5) US Patent #6,741,794 to Sumioka et al:

As is shown in Figure 2, Sumioka et al. describes a video signal compositing system which, as shown in Figure 4, comprises a plurality of selection circuits for combining video images in a sequential manner.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,218,710 to Kashigi et al in view of US Patent Document #2003/0156824 to Lu.

I. The showing of Kashigi et al:

As is shown in Figure 2, Kashigi et al describes a video signal reproduction and display apparatus that includes:

- 1) A first storage means (e.g. @61), comprised of a first frame memory (i.e., @ 39), for receiving and storing first moving picture data (e.g., @ 39);
- 2) A second storage means (e.g. @62)¹, comprised of a second frame memory (not shown in the Figure), for receiving and storing second moving picture data (not shown in the Figure); and
- 3) A selection means (@ 64) for selecting outputs of from the first and second storage means on a area-by-area, i.e., pixel-by-pixel, basis.

II. Differences:

Claim 1 differs from the showing of Kashigi et al. only in that claim 1 recites that both the first moving picture data and the second moving picture data are provided from a "record medium".

III. The showing of Lu:

Lu has been cited as evidence of the fact that it was notoriously well known in the recording and display to have simultaneously reproduced and displayed a plurality of video data segments that are recorded on a common "record medium".

IV. Obviousness:

In light of the showing of Lu, it would have been obvious to one of ordinary skill in to have configured the system shown in Figure 2 of Kashigi et al to receive said first and second moving picture data from a record medium thereby, as evidenced via the showing of Lu [e.g., note paragraph 0004], desirably permitting the concurrent display of multiple segments from said medium.

¹ While not shown in the Figure, as disclosed, the "detailed" structure of block 62 is identical to that which is shown for block 61.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,218,710 to Kashigi et al in view of US Patent Document #2003/0156824 to Lu for the same reasons that were set forth above for claim 1.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,218,710 to Kashigi et al in view of US Patent Document #2003/0156824 to Lu for the same reasons that were set forth above for claim 1. Additionally:

The frame memories in the modified system of Kashigi et al inherently represent "plane" memories given that the data stored therein represent different video image "planes".

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,218,710 to Kashigi et al in view of US Patent Document #2003/0156824 to Lu for the same reasons that were set forth above for claim 3. Additionally:

It is noted that Kashigi et al itself (i.e., @ 139 of Figure 5) evidences that it was known and desirable to have modified the write-side device circuitry of compositing circuitry so as to enable the received moving picture data to be reduced prior to compositing. The examiner maintains that it would have been obvious to one of ordinary skill in the art to have further modified the system shown in Figure 2 of Kashigi et al to have included the compression circuitry (e.g., @ 139) shown with respect to the Figure 5 embodiment; i.e., the examiner maintains that one skilled in the art would have recognized that the advantages imparted to the Figure 5 configuration apply equally to the Figure 2 configuration of the compositing system.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,218,710 to Kashigi et al in view of US Patent Document #2003/0156824 to Lu for the same reasons that were set forth above for claim 1.

11. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,218,710 to Kashigi et al in view of US Patent Document #2003/0156824 to Lu for the same reasons that were set forth above for claim 1, in view of the 1984 publication "Structured Computer Organization" by Tanenbaum.

Tanenbaum has been cited as evidencing the fact that those of ordinary skill in the art have long recognized hardware and software implementations of a given processing operation to be obvious and equivalent [note lines 10-13 of page 11]. In light of this showing, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implanted the modified system of Kashigi et al using a software driven processor (i.e., wherein the software must necessarily be stored via some type of processor readable medium).

12. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem.

The showing of Kellar:

Kellar has been as being illustrative of well known image compositing circuitry. Specifically, as shown in Figures 2 and 3, Kellar evidences that it was conventional for such circuitry to have comprised:

- 1) A first storage means, comprised of a first frame store (e.g., one of 15-19 of Figure 2), for storing first moving picture data;
- 2) A second storage means, comprised of a second frame store (e.g., a different one of 15-19 of Figure 2), for storing second moving picture data;
- 3) Selection means (e.g., @ 20 of Figures 2 and 3) for selecting one of the outputs of the storage means on an area-by-area basis; and
- 4) Image generating means (e.g., @ 45 of Figure 3) for generating a combined display signal from the output of the selection means for display on a display device (@ 46 of Figure 3).

II. Differences:

The examiner notes that the system disclosed by Kellar is described as being implemented within a special effects environment. Claim 1 differs from the showing of Kellar only in that claim 1 recites a "reproduction apparatus" wherein the moving image signals that are combined are provided from a "record medium".

III. The showing of Windrem:

Windrem has been cited because it evidences the fact that it the special effects art it was known to have been advantageous to have provided the moving signals that were to be combined from a "record medium" [SEE: the cover page; and lines 8-25 of column 2].

IV Obviousness:

In light of the showing of Windrem, it would have been obvious to one of ordinary skill in the art to have modified the system disclosed by Kellar whereby the moving video images are provided thereto from a "record medium"; i.e., motivation for the modification being provided by the teaching in Windrem that such a configuration reduces system cost.

13. **Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 1. Additionally:**

A) With respect to claim 2:

The digital nature of the image data means that the images must be mixed pixel-by-pixel.

B) With respect to claim 3:

The examiner contends that the frame stores in the modified system of Kellar falls within the meaning of "plane memories" given that they store respective image planes that are combined via the selection means Figure based on the determined "priority" of each image plane.

C) With respect to claim 4:

Figure 2 of Kellar shows that the images (e.g., @ 1-5) may be reduced images.

14. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 4, further in view of US Patent #6,661,426 to Jetha et al.**

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the showing of Kellar in accordance with the showing of Windrem for the reasons set forth above with respect to claim 4.

Claim 5 differs from the modified system of Kellar only in that claim 5 requires one of the stores to store wall paper picture data instead of moving picture data.

Jetha et al has been cited because it evidences that it was known, in the video image compositing arts, to have provided and utilized "wallpaper picture data" as a background image for the combined image signals [e.g., note lines 10-14 of column 4]. In light this showing, it would have been obvious to one of ordinary skill in the art to have provided a wallpaper picture signal to one of the frame stores in the modified system of Kellar as background image data for the combined image.

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15. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 3, further in view of US Patent #6,888,577 to Waki et al.**

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the showing of Kellar in accordance with the showing of Windrem for the reasons set forth above with respect to claim 3.

Claim 6 differs from the modified system of Kellar only in that claim 6 requires a plurality of combining means for combining the images in turn.

Waki et al. has been cited as evidencing state-of-the-art which existed at the time of the instant invention. Specifically, Waki et al. evidences that those skilled in the digital television art understood that numerous image planes, representing different video and graphical images could be blended together in turn, i.e., from top to bottom, in order to produce a composite image frame for display on a TV receiver. [SEE: The discussion under the heading "Background Art" in columns 1 and 2 and, in particular, lines 50-67 of column 1 and lines 1-7 of column 2; and Figures 1A, 1B, 11, and 12]

In light this showing, it would have been obvious to one of ordinary skill in the art to have implemented the combining means of the modified systems of Kellar as a plurality of combining means which combines the images, i.e., top-to-bottom, in turn; i.e., such a modification represents the obvious substitution of one well known configuration for another.

16. **Claims 7 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem and US Patent #6,888,577 to Waki et al for the same reasons that were set forth above for claim 6. Additionally:**

As pointed out in Waki et al., it was well known in the art for ones of the image planes to comprise graphic and/or OSD content. The examiner takes Official notice that such information was known to have comprised/included subtitle images (i.e., closed captioning). The examiner further notes that each compositing means is controlled at least in response to the data of the image data plane that is given priority.

17. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 1. Additionally:

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the showing of Kellar in accordance with the showing of Windrem for the reasons set forth above with respect to claim 1.

Claim 9 differs from the modified system of Kellar only in that claim 9 requires an additional frame/plane memory to be located at the output of the selection means.

The examiner takes Official Notice that it was well known in the video compositing art to have associated an additional frame/plane memory with the display device to compensate for differences in the refresh rate of the sources and the display rate of the display device. In light of this conventional knowledge, it would have been obvious to one of ordinary skill in the art to have associated such a frame/plane memory with the display in the modified systems of Kellar to compensate for differences in display and refresh rates.

18. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 9. Additionally:

Figure 2 of Kellar shows that the images (e.g., @ 1-5) may be reduced images [note that claim 10 is written in the alternative using "or"].

19. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 10, further in view of US Patent #6,888,577 to Waki et al.

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the showing of Kellar in accordance with the showing of Windrem for the reasons set forth above with respect to claim 10.

Claim 11 differs from the modified system of Kellar only in that claim 11 requires a plurality of combining means for combining the images in turn.

Waki et al. has been cited as evidencing state-of-the-art which existed at the time of the instant invention. Specifically, Waki et al. evidences that those skilled in the digital television art understood that numerous image planes, representing different video and graphical images could be blended together in turn, i.e., from

top to bottom, in order to produce a composite image frame for display on a TV receiver. [SEE: The discussion under the heading "Background Art" in columns 1 and 2 and, in particular, lines 50-67 of column 1 and lines 1-7 of column 2; and Figures 1A, 1B, 11, and 12]

In light of this showing, it would have been obvious to one of ordinary skill in the art to have implemented the combining means of the modified systems of Kellar as a plurality of combining means which combines the images, i.e., top-to-bottom, in turn; i.e., such a modification represents the obvious substitution of one well known configuration for another.

20. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem and US Patent #6,888,577 to Waki et al for the same reasons that were set forth above for claim 11. Additionally:

As pointed out in Waki et al., it was well known in the art for ones of the image planes to comprise graphic and/or OSD content. The examiner takes Official notice that such information was known to have comprised/included subtitle images (i.e., closed captioning). The examiner further notes that each compositing means is controlled at least in response to the data of the image data plane that is given priority.

21. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem and US Patent #6,888,577 to Waki et al for the same reasons that were set forth above for claim 11. Additionally:

The examiner notes that the priority information determines "transparency". Thus, any time/position at which one images (e.g., the reduced images) are displayed over/through another image inherently requires the non-displayed image to be transparent at that location.

22. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem and US Patent #6,888,577 to Waki et al for the same reasons that were set forth above for claim 14, further in view of US Patent #6,661,426 to Jetha et al.

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the showing of Kellar in accordance with the showings of Windrem and Waki et al for the reasons set forth above with respect to claim 14.

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Claim 15 differs from the modified system of Kellar only in that claim 15 requires one of the stores to store wall paper picture data instead of moving picture data.

Jetha et al has been cited because it evidences that it was known, in the video image compositing arts, to have provided and utilized "wallpaper picture data" as a background image for the combined image signals [e.g., note lines 10-14 of column 4]. In light of this showing, it would have been obvious to one of ordinary skill in the art to have provided a wallpaper picture signal to one of the frame stores in the modified system of Kellar as background image data for the combined image; i.e., again the examiner notes that the priority information determines "transparency" and, as such, any time/position at which one images (e.g., the wallpaper image) is displayed over/through another image such inherently requires the non-displayed image to be transparent at that position/location. When the wallpaper image is not displayed over/through another image, it is displayed at "other" areas,

23. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,360,831 to Kellar in view of US Patent #5,315,390 to Windrem for the same reasons that were set forth for above for claim 1.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345. The examiner can normally be reached on M-F from 6:00AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Marsh D. Banks-Harold, can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID E HARVEY/

Primary Examiner, Art Unit 2621

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